Invited Keynote Uniting in Activism: The European Association of Geochemistry's Approaches to Advancing Diversity, Equity, and Inclusion in Geochemistry and Cosmochemistry

Uniting in Activism: The European Association of Geochemistry's Approaches to Advancing Diversity, Equity, and Inclusion

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The geochemistry community is a collection of highly-educated human beings with identities, life events, and needs ranging as widely as the thematic interests of our combined areas of study among Earth and planetary materials. Of central concern at this time, to UK geochemists and others, are:

- a severe shortage and frustrations to genuine and meaningful actions that increase stable routes to secure employment to help prevent the marginalisation and / or loss of presently underrepresented or entirely absent talent and diversity of thought;
- substantial annual increases to the number of newly-minted Ph.Ds across the globe that must be equipped to fulfil their full potential in a range of career paths and destinations;
- a persisting lack of diversity and differential attrition among geoscientists (and geochemists by implication), that are impacted by a complex set of issues including an urgent need to be actively anti-racist and anti-discriminatory while doing more to tackle broken career pipelines, and;
- systemic pressures that create wide-spread overburden and can exacerbate challenges to disciplinary attractiveness, workplace friendliness, good wellbeing, the inclusion and thriving of people with all kinds of caring, physical and mental health / neurodiversity needs [1-6]**.**

Further, this is an age where science and scientists are subjects of relatively short-term measures of performance (e.g., UK REF - a high-stakes exercise linked to reputation and institutional allocations from the £2bn per year Quality-Related universities block grant) and metrics for citations; these factors are now among drivers of institutional strategy. Yet, are there flaws among such drivers? The people of science contribute to fundamental discoveries and innovation excellence - as well as disciplinary growth and responsible, sustainable world economies - in a variety of ways and over varying timescales. Caution over measures of scientific significance is urged by the San Francisco Declaration on Research Assessment [7] and the UK community. The latter have found the high financial (nearly £250M in 2014) and human costs, as well as associated waste, permanent losses, and compromises to academic freedom linked with REF to be deeply concerning [8-9]. Instead, should we be judging our successes and promise of sustained excellence and impact via diversity results? Is it most important that overdue reforms are invested in at every educational stage and all career levels to improve the representation and belonging of all people of the public that we serve?

As this remains the founding year for our team, this presentation will provide a personal introduction and overview of lived-experiences that reference disability at the intersection of a humble working class background, modern-day womanhood, and creative interests in sharing science [10]. This talk shall also explore the vision of the European Association of Geochemistry (EAG) Diversity, Equity, and Inclusion (DEI) Committee who believe that DEI are the foundations of a strong and thriving scientific community. We strive to unite the membership in collective efforts to challenge the status quo, transform community culture, and address system-wide and structural barriers to participation in geochemistry and cosmochemistry. In endeavouring to serve the community our present efforts are wide-ranging and include proposing and encouraging discussion to realise reforms to the criteria and procedures of professional recognition and awards [11] as well as journal editorial boards [12], contributing to the organisation of online Town Hall meetings, and supporting and inviting contributions to a DEI section of the EAG blog. Critically, we are enabling the generation of a robust new evidence base specific to geochemistry to help address the above listed challenges while advancing the friendliness and kindness of our professional cultures. Above all, we cannot and should not do this alone; we wish to hear from, work with, and perhaps spark new action with people. Challenges to DEI impact everyone and our overall potential for scientific excellence. It is imperative that current majority groups/influencers work in partnership with the marginalised to drive progress.

References: **[1]** Riches, A.J.V. *et al.,* 2021. EAG Blog **[2]** Boatright D. *et al.,* 2019. *Geoscientist* 29 (8), 16-19. Pdf **[3]** Joint report of the Geological Soc. London & University Geoscience UK. **[4]** Bernard R. & Cooperdock E., 2018. *Nature Geosci.* 11, 292–295. Link **[5]** Dowey N., *et al.,* 2021, *Nat. Geosci. 14, 256–259. Link* **[6]** Riches A., 2021, *ChemWorld*, 18(3), 4. preprint **[7]** San Francisco Declaration on Research Assessment **[8]** Research Integrity: A Landscape Study, *Vitae*, UK **[9]** Sayer D., 2015. Website link **[10]** Riches A, 2020, EAG blog **[11]** Pourret O. *et al.,* 2021, *GCA invited review, in rev.* preprint **[12]** Pourret O. *et al.,* 2021, *Elements, in rev.*